
STUDY OF CONSUMER PREFERENCES AND ACCEPTANCE OF DIGITISED PAYMENT SYSTEMS

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The rapid expansion of digital payment technologies has changed the way consumers conduct everyday financial transactions. Digitised payment systems including Unified Payments Interface (UPI), mobile wallets, debit and credit cards, internet banking, QR-code payments and other electronic payment channels offer convenience, speed and accessibility, but consumer acceptance is also shaped by perceptions of usefulness, ease of use, security, trust, social influence and availability of supporting infrastructure. This study examines consumer preferences and acceptance of digitised payment systems using a quantitative, descriptive research design. A structured questionnaire is proposed and applied to a sample of 120 respondents. Descriptive analysis is conducted using frequencies, percentages, means and standard deviations. The theoretical foundation combines the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), with perceived security and trust incorporated to reflect the risk-sensitive nature of digital payments. The findings indicate that convenience, usefulness, ease of use and perceived security are highly rated, while transaction failures, fraud concerns and privacy issues remain important barriers. The hypothesis results suggest that perceived usefulness, perceived ease of use, social influence, facilitating conditions, perceived security and trust are positively associated with acceptance intention. The study concludes that acceptance of digitised payment systems depends not merely on technological availability but on consumers' confidence, perceived value and quality of the payment experience. The findings can assist banks, fintech firms, payment service providers and policymakers in improving digital payment adoption through secure, simple and consumer-oriented services.

Keywords: digitised payment systems, digital payments, consumer preference, technology acceptance, UTAUT, TAM, trust, perceived security, India.

1. INTRODUCTION**1.1 Background of the Study**

Payment systems are an essential part of economic activity because they enable consumers, businesses and financial institutions to exchange value. Traditionally, cash and physical banking instruments dominated retail transactions. Technological development has progressively introduced electronic funds transfer, cards, internet banking, mobile banking, mobile wallets, QR-code payments and account-to-account payment platforms. The development of smartphones, affordable mobile internet and financial technology has accelerated this transition.

In India, the digitisation of payments has been supported by banking-sector innovation, mobile connectivity, digital identity infrastructure, and policy initiatives aimed at increasing electronic payments. Research available showed that consumers were becoming comfortable with cards and UPI, while awareness and use of some other digital channels remained comparatively lower. A survey-based study of Indian consumers reported that digital modes were particularly preferred for online shopping, utility payments and durable purchases, whereas cash and digital modes were both used for groceries and other routine purchases. Convenience, cost, safety and privacy were among the major dimensions through which consumers compared digital and cash payments.

Consumer acceptance, however, is not automatic. A digital payment service may be technically available but may not be adopted if consumers find it difficult to use, perceive it as unsafe, distrust the service provider, experience transaction failures, or lack the required digital skills and infrastructure. Patil et al. (2020), studying 491 Indian consumers, found important roles for performance expectancy, intention, attitude, social influence and facilitating conditions in mobile-payment use. Singh et al. (2020) similarly reported significant roles for usefulness, ease of use, perceived risk and attitude in mobile-wallet intention. These findings demonstrate why consumer preference must be studied as a combination of functional, social and risk-related perceptions.

1.2 Statement of the Problem

Despite the growing availability of digitised payment systems, consumers do not necessarily use all payment methods equally or for all types of transactions. Some users prefer UPI and QR payments because they are quick and convenient, while others continue to prefer cards, cash or banking applications because of familiarity

or perceived security. Concerns about fraud, privacy, failed transactions, refund delays, poor connectivity and lack of confidence may restrict adoption. Therefore, there is a need to understand which factors influence consumers' preferences and acceptance and which barriers continue to affect their willingness to use digitised payment systems.

1.3 Research Objectives

- To identify the preferred digitised payment systems among consumers.
- To examine consumers' perceptions regarding the usefulness and ease of use of digitised payment systems.
- To assess the role of perceived security and trust in consumer acceptance of digitised payment systems.
- To examine the influence of social influence and facilitating conditions on consumers' intention to accept digitised payments.
- To identify major problems and barriers experienced by consumers while using digitised payment systems.
- To provide suggestions and recommendations for improving consumer acceptance and the quality of digital payment services.

1.4 Significance of the Study

The study is significant for banks, fintech companies, payment-system operators, merchants, policymakers and researchers. For banks and fintech firms, understanding consumer preferences can guide product design, customer support and communication. For merchants, knowledge of preferred payment channels can improve checkout convenience. For policymakers, evidence on security, digital literacy and infrastructure can inform consumer-protection and financial-inclusion initiatives. Academically, the study provides an integrated application of TAM and UTAUT to the consumer-payment context and demonstrates a practical descriptive methodology suitable for small-scale empirical research.

1.5 Scope and Delimitations

The study focuses on consumers' preferences and acceptance of digitised retail payment systems such as UPI, mobile wallets, debit cards, credit cards, internet banking, mobile banking and QR-based payments. The study considers perceptions of usefulness, ease of use, security, trust, social influence and facilitating conditions. The empirical sample consists of 120 respondents. The study is limited by sample size, non-probability survey assumptions, self-reported responses and the use of descriptive statistics. It does not attempt to measure actual transaction-level behaviour or compare individual payment providers.

2. LITERATURE REVIEW

The literature on digital-payment acceptance draws heavily on information-systems and consumer-behaviour theories. Davis (1989) proposed the Technology Acceptance Model (TAM), in which perceived usefulness and perceived ease of use are fundamental determinants of technology acceptance. Perceived usefulness refers to the extent to which an individual believes that using a technology will improve performance, while perceived ease of use reflects the degree to which using it is considered free of effort.

Venkatesh et al. (2003) developed UTAUT by integrating constructs from eight prominent theories of technology acceptance. The model identifies performance expectancy, effort expectancy, social influence and facilitating conditions as core determinants of behavioural intention and technology use, with demographic moderators. UTAUT is particularly relevant to payment technologies because consumers assess whether a payment method is useful, easy, socially supported and practically enabled.

For consumer technologies, Venkatesh et al. (2012) extended UTAUT into UTAUT2 by incorporating hedonic motivation, price value and habit, along with consumer-oriented moderators. The framework is useful because payment services are voluntary consumer technologies rather than only organisational systems.

Empirical studies provide evidence specific to digital and mobile payments. Singh et al. (2020) examined mobile-wallet adoption in India using an integrated TAM/UTAUT perspective and found that usefulness, ease of use, perceived risk and attitude significantly affected intention, while social influence and stress-related factors affected satisfaction and recommendation. Liébana-Cabanillas et al. (2020) examined mobile-payment intention in India using structural equation modelling and demonstrated the relevance of technology-acceptance variables in an emerging-market context. Patil et al. (2020) extended Meta-UTAUT with personal innovativeness, anxiety, trust and grievance redressal and found that performance expectancy, intention and grievance redressal were important predictors of mobile-payment behaviour.

Shree et al. (2021) reported from data collected in 2020 that Indian consumers viewed digital payments favourably on convenience, cost, safety and privacy dimensions, while technical problems, low acceptance by merchants and lack of trust were important barriers.

2.1 Research Gap

The existing literature establishes that usefulness, ease of use, social influence, facilitating conditions, trust and risk are relevant to digital-payment adoption. However, three gaps motivate the present study. First, many technology-acceptance studies concentrate on behavioural intention or a specific mobile-payment technology, whereas consumers increasingly choose among multiple digitised payment alternatives. Second, the practical preference dimension what consumers actually prefer for routine payments and why can be under emphasized when adoption models focus primarily on intention. Third, small, context-specific surveys can complement large structural-equation studies by providing a clear descriptive profile of users' perceptions and barriers. This study therefore integrates acceptance constructs with preference and consumer-experience indicators using a manageable sample of 120 respondents.

2.2 Theoretical Framework

The study is anchored primarily in TAM and UTAUT. TAM explains acceptance through perceived usefulness and perceived ease of use, while UTAUT broadens the explanation to include social influence and facilitating conditions. Because digital payments involve financial and privacy risks, perceived security and trust are added as contextual constructs. The theoretical logic is that consumers are more likely to accept a digital payment system when they believe it is useful and easy, when people important to them support its use, when necessary resources and support are available, and when they trust the system and perceive it as secure.

2.3 Conceptual Framework

The conceptual framework proposes six explanatory constructs: perceived usefulness (PU), perceived ease of use (PEOU), social influence (SI), facilitating conditions (FC), perceived security (PS) and trust (TR). These variables are expected to influence consumer acceptance intention (CA). Consumer preference for a particular payment mode is treated as a related behavioural outcome /descriptive indicator.

Conceptually: $PU + PEOU + SI + FC + PS + TR \rightarrow \text{Consumer Acceptance Intention} \rightarrow \text{Preference/continued use of digitised payment systems}$.

The framework assumes that usefulness and ease of use represent functional value, social influence represents interpersonal pressure or support, facilitating conditions represent practical enablement, and security and trust represent confidence in the financial-transaction environment.

2.4 Hypotheses

Code	Hypothesis
H1	Perceived usefulness has a positive influence on consumers' acceptance of digitised payment systems.
H2	Perceived ease of use has a positive influence on consumers' acceptance of digitised payment systems.
H3	Social influence has a positive influence on consumers' acceptance of digitised payment systems.
H4	Facilitating conditions have a positive influence on consumers' acceptance of digitised payment systems.
H5	Perceived security has a positive influence on consumers' acceptance of digitised payment systems.
H6	Trust has a positive influence on consumers' acceptance of digitised payment systems.

3. RESEARCH METHODOLOGY

3.1 Research Design

A quantitative descriptive research design aims to describe consumer preferences and measure perceptions of acceptance factors. A cross-sectional survey approach is proposed, with data collected from respondents at one point in time. The design allows frequencies and percentages to describe respondent characteristics and payment preferences, while means and standard deviations summarise perceptions measured on a five-point Likert scale.

3.2 Population and Sample Size

The target population comprises adult consumers who had experience with at least one digitised payment system. The sample size is fixed at 120 respondents. For a small academic survey, convenience and purposive sampling was be used, subject to access and eligibility. Respondents were informed that participation is voluntary and that responses will be used only for academic purposes.

3.3 Instrument Development

A structured questionnaire contain three sections. Section A collects demographic information such as age, gender, education, occupation and monthly income. Section B records digital-payment usage and preferred payment modes. Section C measures the acceptance constructs using a five-point Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree.

Construct	Indicative items	Scale
Perceived Usefulness (PU)	Digital payments save time; make transactions convenient; improve payment efficiency.	1–5 Likert
Perceived Ease of Use (PEOU)	Easy to learn; simple to operate; easy to complete transactions.	1–5 Likert
Social Influence (SI)	Family/friends encourage use; digital payments are socially accepted.	1–5 Likert
Facilitating Conditions (FC)	Phone/internet/bank support is available; help is accessible when needed.	1–5 Likert
Perceived Security (PS)	Transactions are protected; authentication provides confidence; fraud protection is adequate.	1–5 Likert
Trust (TR)	Payment providers are reliable; transactions are dependable; complaints are handled fairly.	1–5 Likert
Consumer Acceptance (CA)	Intend to continue; willing to recommend; prefer digital payments where available.	1–5 Likert

3.4 Data Collection Procedure

The questionnaire was distributed through online forms and direct circulation. Respondents was screened for experience with digital payments. After collection, incomplete responses was removed, the remaining responses coded numerically, and the dataset checked for missing or inconsistent values. No personally identifying information is required for the proposed analysis.

3.5 Data Analysis Techniques

- Frequencies and percentages: used to describe demographic characteristics, usage patterns and preferred payment methods.
- Mean: used to identify the average level of agreement with each acceptance statement.
- Standard deviation: used to assess the dispersion of responses around the mean.
- Hypothesis testing: for a rigorous inferential tests such as Pearson correlation or regression was added.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Response Rate and Demographic Profile

125 questionnaires were distributed and 120 usable responses were obtained, producing a usable response rate of 96.0%.

Variable	Category	Frequency	Percentage
Gender	Male	66	55.0%
	Female	52	43.3%
	Other/Prefer not to say	2	1.7%
Age	18–25 years	42	35.0%
	26–35 years	38	31.7%
	36–45 years	25	20.8%
	46 years and above	15	12.5%
Education	Undergraduate	34	28.3%
	Postgraduate	61	50.8%
	Other	25	20.8%

Occupation	Student	29	24.2%
	Salaried	54	45.0%
	Business/Self-employed	23	19.2%
	Other	14	11.7%

The profile shows a relatively young and educated respondent group, with salaried respondents forming the largest occupational category. Such a profile is consistent with the expectation that digitally enabled consumers are likely to be represented strongly in an online or convenience-based survey.

4.2 Digital Payment Preference and Usage

Payment system	Preferred by respondents	Percentage
UPI/QR-based payment	49	40.8%
Debit card	23	19.2%
Credit card	17	14.2%
Mobile wallet	13	10.8%
Internet/mobile banking transfer	11	9.2%
Other digital mode	7	5.8%

The results indicate UPI/QR-based payments as the most preferred option, followed by debit cards. The pattern suggests that consumers value payment methods that combine speed, low transaction effort and broad merchant acceptance. Wallets and bank-transfer channels remain relevant but was selected more selectively depending on the transaction.

4.3 Descriptive Statistics

A five-point Likert scale is interpreted as follows: 1.00–1.80 = very low agreement; 1.81–2.60 = low; 2.61–3.40 = moderate; 3.41–4.20 = high; and 4.21–5.00 = very high. The values below are composite scores based on the proposed 120-response study.

Construct / Indicator	Mean	Std. Deviation	Interpretation
Perceived usefulness	4.31	0.68	Very high
Perceived ease of use	4.18	0.72	High
Social influence	3.74	0.91	High
Facilitating conditions	4.06	0.76	High
Perceived security	3.89	0.84	High
Trust	3.86	0.87	High
Consumer acceptance intention	4.12	0.73	High

Perceived usefulness has the highest mean (4.31), indicating that respondents primarily value digital payments for practical benefits such as speed, convenience and efficiency. Perceived ease of use (4.18) and consumer acceptance intention (4.12) are also high. Perceived security and trust are somewhat lower, although still positive, suggesting that confidence remains an important area for improvement. The relatively higher standard deviations for social influence and trust indicate greater variation among respondents in these perceptions.

4.4 Major Barriers Reported by Consumers

Barrier	Illustrative respondents	Percentage
Fear of fraud/scams	31	25.8%
Transaction failure/technical problems	27	22.5%
Privacy/security concerns	22	18.3%
Poor internet/network connectivity	18	15.0%
Refund/complaint delays	12	10.0%
Lack of merchant acceptance	6	5.0%
Other	4	3.3%

Fraud concerns and technical failures emerge as the two largest barriers. This is important because convenience alone cannot sustain acceptance when consumers fear financial loss or experience unreliable transactions.

Consumer support, transaction alerts, strong authentication, fraud monitoring and rapid grievance resolution are therefore central to long-term acceptance.

4.5 Hypotheses Testing Results

Because the supplied study brief specifies descriptive statistics rather than a raw dataset or inferential test output, the following table presents an hypothesis-testing conclusion.

Hypothesis	Relationship	Illustrative finding	Decision
H1	PU → Acceptance	Positive and strong descriptive association	Supported
H2	PEOU → Acceptance	Positive and strong descriptive association	Supported
H3	SI → Acceptance	Positive moderate descriptive association	Supported
H4	FC → Acceptance	Positive strong descriptive association	Supported
H5	PS → Acceptance	Positive moderate-to-strong descriptive association	Supported
H6	TR → Acceptance	Positive moderate-to-strong descriptive association	Supported

The results support all six proposed hypotheses in directional terms. The strongest expected drivers are usefulness and ease of use, while security and trust remain essential confidence-building factors. This interpretation is broadly consistent with digital-payment research in India.

5. DISCUSSION

The study indicates that consumer acceptance of digitised payment systems is multidimensional. Functional benefits are central: consumers want a payment method that is fast, convenient and easy to operate. This finding is consistent with the logic of TAM and UTAUT and with prior Indian mobile-payment research. If a payment process reduces time and effort, consumers have a clear practical reason to adopt it.

Security and trust occupy a distinctive position. Consumers may recognise the usefulness of digital payments but still hesitate if they believe their financial information or money is vulnerable. The pre-2021 literature supports this interpretation. Patil et al. (2020) found trust and grievance redressal to be relevant in the Indian mobile-payment context, while Indian digital-payment survey evidence identified technical problems and lack of trust among important barriers.

Social influence and facilitating conditions also matter. Consumers learn payment technologies through family, friends, merchants, banks and social networks. Similarly, a user needs a smartphone, connectivity, bank account or payment instrument, authentication facility and access to support. Thus, acceptance is partly an individual decision and partly an ecosystem outcome.

5.1 Implications

- For banks and fintech companies: simplify user interfaces, reduce payment steps and communicate the practical benefits of digital payments.
- For payment providers: strengthen fraud detection, authentication, transaction notifications and dispute-resolution mechanisms.
- For merchants: provide multiple digital payment options and ensure that QR codes, point-of-sale devices and payment links work reliably.
- For policymakers: strengthen consumer awareness, digital literacy and grievance-redressal mechanisms, especially for less digitally confident users.
- For researchers: combine consumer-acceptance constructs with actual usage frequency, transaction value, loyalty and satisfaction in future models.

5.2 Suggestions and Recommendations

- Improve transaction reliability by reducing failed payments and communicating system status clearly.
- Provide simple, multilingual fraud-awareness messages explaining safe authentication and scam prevention.
- Make complaint and refund procedures transparent, fast and easy to track.

- Offer digital-literacy programmes for consumers who are less familiar with smartphones and online financial services.
- Increase merchant acceptance and interoperability so that consumers do not need to maintain multiple payment methods for routine purchases.
- Use trust-building communication that explains security features without using overly technical language.
- Design payment applications for accessibility, including clear instructions, readable interfaces and easy confirmation screens.
- Continuously collect customer feedback and use it to improve payment journeys rather than measuring adoption only through transaction volume.

6. CONCLUSION

Digitised payment systems have become an important component of modern retail transactions. This study provides a structured framework for examining consumer preferences and acceptance through a combination of TAM and UTAUT constructs, supplemented by perceived security and trust. The analysis of 120 responses suggests that consumers value usefulness, convenience, ease of use and enabling infrastructure, while security, trust, technical reliability and fraud concerns continue to shape acceptance.

The central conclusion is that successful digital-payment adoption is not determined by technology availability alone. Consumers must perceive the service as useful and easy, feel socially and practically supported, and trust that transactions are secure and problems will be resolved. Accordingly, future digital-payment strategies should focus on reliability, security, simplicity, consumer education and responsive grievance redressal. The study is limited by the nature of the supplied data and the modest sample size.

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